

EXHIBIT 72

**UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF OKLAHOMA**

In re SANDRIDGE ENERGY, INC.
SECURITIES LITIGATION

Case No.: 5:12-cv-01341-G

EXPERT REPORT OF STEVEN GRENADIER, Ph.D.

April 4, 2019

CONFIDENTIAL

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I. Qualifications

1. I, Steven R. Grenadier, Ph.D., am the William F. Sharpe Professor of Financial Economics at the Graduate School of Business at Stanford University. I have been a member of the Stanford faculty since 1992 and serve as Chair of the Finance Department. My teaching and research focus on the area of investment analysis. While at Stanford, I have taught graduate-level courses in Investment Modeling, Portfolio Management, Real Estate Investment, and Finance Theory. In 1987, I graduated Phi Beta Kappa and summa cum laude from the University of California at Berkeley with a B.S. in Business Administration. In 1992, I received my Ph.D. in Business Economics (Finance) from Harvard University.

2. I have published numerous articles in finance and economics journals and have spoken at numerous academic and business conferences about my research. I am the co-editor of the *Journal of Real Estate Finance and Economics*, a leading academic real estate journal. My research focuses on sophisticated valuation models of complicated financial structures and their empirical implications. I am a former Trustee of E*Trade Funds, Nicholas Applegate Institutional Funds, and AQR Funds. I also serve as a Senior Consultant to Financial Engines, Inc., an online investment advisor, and as a Senior Advisor to Cornerstone Research.

3. My curriculum vitae, which includes a list of the publications I have authored, is included as Appendix A. A list of my deposition and trial testimony over the last four years is included as Appendix B.

II. Assignment

4. I have been retained in this matter by counsel for Defendants SandRidge Energy, Inc. (“SandRidge” or “the Company”), Tom Ward, Matthew Grubb, and James Bennett. I have been asked to review and comment on the expert report dated March 1, 2019 of Bjorn Steinholt.¹ Specifically, counsel has asked me to assess whether Mr. Steinholt has (1) established that revelation of the information that Plaintiffs have identified as corrective with respect to the misrepresentations and omissions alleged in Plaintiffs’ Third Consolidated Amended Complaint for Violations of Federal Securities Laws (the “Complaint”) caused the price of SandRidge’s

¹ Expert Report of Bjorn I. Steinholt, CFA, March 1, 2019 (“Steinholt Report”).

common stock to decline and, in turn, caused investors in SandRidge's common stock to incur losses; and (2) appropriately calculated the per-share damages (if any) to members in the putative class who incurred losses from the price declines in SandRidge's common stock on the identified loss causation dates.

5. I am being compensated at my standard billing rate of \$950 per hour. I have been assisted in this matter by the staff of Cornerstone Research, who worked under my direction. I receive additional compensation from Cornerstone Research based on its collected staff billings for its support of me in this matter. Neither my compensation in this matter nor my compensation from Cornerstone Research is in any way contingent or based on the content of my opinion or the outcome of this or any other matter. Materials that I have considered in preparing this report are cited in the footnotes to this report and contained in Appendix C

III. Summary of Opinions

6. Based on my experience and analysis of the materials I have reviewed in this matter, I have reached the following opinions, which are explained in greater detail below:

- a. Mr. Steinholt has failed to establish fundamental elements required for purposes of establishing loss causation. Specifically, Mr. Steinholt has not clearly articulated (i) what information Defendants could and should have disclosed to market participants in order to avoid investors being misled by each alleged misrepresentation or omission (*i.e.*, the "but-for" disclosure) and (ii) when the information that would have been disclosed in this "but-for" disclosure became known or knowable to Defendants;
- b. Mr. Steinholt's damages analysis fails to remove the price impact of confounding factors that appear to have played a role in the stock drop that occurred on November 9, 2012; and
- c. Mr. Steinholt's damages analysis incorrectly assumes that price inflation would have remained constant throughout Plaintiffs' putative class period of February 24, 2011 to November 8, 2012 (the "Class Period"),² ignoring the fact that, under Plaintiffs' theory of liability, any alleged inflation should have fluctuated in

² Complaint, ¶ 1.

response to factors that changed over time, including the extent of SandRidge's holdings in the Mississippian and the relative prices of oil and gas.

IV. Economic Analysis Required for Assessing Loss Causation and Damages

7. In the following section, I discuss the economic analyses that are required for purposes of establishing loss causation and measuring damages resulting from the alleged corrective disclosure.

A. Economic Analysis Establishing Loss Causation

8. It is my understanding that in a securities case such as the current matter, Plaintiffs must demonstrate economic loss and loss causation—that is, they must demonstrate that they incurred actual out-of-pocket damages and that such damages arose from the revelation of the alleged fraud and not from other factors unrelated to Defendants' alleged misstatements and omissions. Put differently, Plaintiffs must demonstrate that they lost money on SandRidge stock and establish a causal connection between Defendants' alleged misrepresentations and omissions and Plaintiffs' alleged economic loss.

9. I understand that Plaintiffs typically establish economic loss in a securities matter by demonstrating that putative class members purchased the stock at a price that was artificially inflated due to alleged misstatements or omissions and held the stock when stock price declined following disclosure of the truth. I understand that, as a matter of law and economics, any price decline occurring prior to a corrective disclosure—that is, the disclosure that reveals the Defendants' alleged misstatements or omissions—cannot have been caused by the alleged fraud and is not recoverable by Plaintiffs or members of the class.³ Rather, the economic loss caused by the Defendants' alleged fraud could be, at most, the price decline of the security attributable to the revelation of the Defendants' alleged fraud. The measurement of this price reaction must account for—among other things—the potential impact of market and industry effects and confounding new information, as discussed below. Accordingly, economic analysis is needed to assess the efficiency of the market and the specific degree to which Plaintiffs' losses were in fact caused by the Defendants' alleged misrepresentations.

³ *Dura Pharm., Inc. et al. v. Broudo et al.*, 544 U.S. 336, 342–43 (2005).

10. Mr. Steinholt attempts to establish loss causation based on the market's response to disclosures that allegedly corrected prior misstatements or omissions. To determine whether there is loss causation using this method, an expert must: (i) identify the alleged misrepresentations (misstatements and/or omissions) made by the Defendants; (ii) determine what information could have and should have been disclosed in order to make the alleged misrepresentations not misleading and when this information could have and should have been disclosed (i.e., the "but-for" disclosure); (iii) determine whether there were any "corrective disclosures" that revealed to the public some truth (i.e., the "but-for" disclosure) that was previously concealed by the Defendants' alleged misrepresentations and not already known to market participants; and (iv) analyze the price reaction of SandRidge common stock, if any, to any such corrective disclosures in order to assess whether and to what extent the disclosures caused "losses" to stock holders.

11. The identification of actual corrective disclosures requires the examination of each potential corrective disclosure in light of prior information known to the market and the facts allegedly concealed by the Defendants. In order to classify information as a corrective disclosure for purposes of an event study, the information must meet a series of conditions:

- The information included within the alleged corrective disclosure is new to the market and is not already known to market participants;
- The information must cause market participants to alter the market's collective assessment of the value of the security (*i.e.*, be "value-relevant");
- The relevance of the information must be specific to the issuer of the security, and not simply relevant to the issuer due to general relevance to the wider industry or market;
- The information must correct an alleged prior misrepresentation or omission; and
- The information must be free of additional contemporaneous information unrelated to the alleged misrepresentation or omission (*i.e.*, confounding information) which may also independently influence the price of the security. Alternatively, adequate analytical approaches must be identified to remove the impact of the confounding information.

12. Should all of the above criteria be satisfied, the information could reasonably be interpreted as a corrective disclosure and the loss causation analysis would proceed to the final step: the examination of the price reaction of the security in response to this corrective disclosure.

13. Event study methodology is widely employed in academic research on the behavior of security prices traded in efficient markets.⁴ Given that prices respond quickly to new, value-relevant information in an efficient market, an economist can study the price reaction immediately following a company disclosure to assess its effect on the security price. An event study may accordingly be used to assess loss causation by testing whether the disclosure of allegation-related news caused the price of a security to decline, thereby causing investors in the security to suffer “losses.”

14. Security prices in an efficient market reflect the present value of expected future cash flows, discounted at the appropriate risk-adjusted rate.⁵ An efficient security price responds not only to information about the company itself, but also to a broad set of new information, including information about the general economy and the industry in which the company competes. In order to isolate the portion of security price movements that is company-specific, the event study methodology estimates security price movements based on general economic and industry-specific factors. The company-specific (or “residual”) return equals the difference between the security’s actual return on a given day and the return predicted by market and industry changes. Statistical tests can be applied to these daily residual price movements to determine which, if any, are “statistically significant.”

15. Event studies are typically implemented by partitioning time into regular intervals, most commonly periods of one trading day. The analysis typically groups together all information arriving during the same trading day into a single “event period.” Statistically significant residual security price movements typically indicate that new, value-relevant, company-specific information reached the market during the study’s event period. Notably, an event study measures the joint effect of all information that reaches the market during the event period. Thus, although an event study can be designed to account for general market and industry effects, it cannot separately measure the impact of different pieces of company-specific information; that is, it cannot separately measure the effects of corrective and confounding information. If multiple pieces of value-relevant, company-specific news reach the market within that period, alternative

⁴ See, e.g., Campbell, John et al., “Event-Study Analysis” in *The Econometrics of Financial Markets*, Princeton, NJ: Princeton University Press, 1997, pp. 149–180.

⁵ Brealey, Richard A., Stewart C. Myers, and Franklin Allen, *Principles of Corporate Finance*, 10th ed., New York: McGraw Hill, 2011, p. 78.

or supplemental analysis is required to reliably disaggregate the price decline attributable to the curative disclosure from that caused by the contemporaneous confounding information.

B. Economic Analysis Measuring Damages

16. I understand that for claims under 10(b), Plaintiffs are only entitled to recover losses that can be attributed to the alleged misrepresentations. Accordingly, if some (or all) of the stock price decline on the date of the alleged corrective disclosure was related to other information unrelated to the allegations, the portion unrelated to the allegations should not be included in an estimate of inflation. For purposes of his damages analysis, Mr. Steinholt proposes to calculate out-of-pocket damages as “either: (a) the artificial inflation per share at the time of purchase for shares purchased but not sold during the Class Period; or (b) the artificial inflation per share at the time of the purchase less the artificial inflation per share at the time of the sale for shares both purchased and sold during the Class Period.”⁶

17. As an initial matter, persons selling their shares prior to the first corrective disclosure (or, in this matter, prior to the end of the Class Period, which coincides with the first alleged corrective disclosure identified by Mr. Steinholt) have not incurred any damages because any supposed inflation would still be present at the time of sale, as it was not removed until the alleged truth was disclosed through the corrective disclosure. As Mr. Steinholt has expressed agreement with this principle,⁷ his latter proposed methodology of calculating out-of-pocket damages would not be applicable to this matter.

18. With respect to the former measure of out-of-pocket damages, Mr. Steinholt approximates the price “inflation” by calculating the residual decline in the price of SandRidge stock on the date of the alleged corrective disclosure he considers, and assumes that this inflation would have remained constant throughout the Class Period.⁸ This method, which I will refer to as “inflation back casting,” is only appropriate if Mr. Steinholt is able to demonstrate that the artificial “inflation” he measures on the date of the corrective disclosure is the same as the artificial “inflation” on each day of the Class Period.

⁶ Steinholt Report, ¶ 78.

⁷ Steinholt Report, ¶ 56.

⁸ Steinholt Report, ¶ 12.

19. In other words, additional economic analysis is required to determine whether it is reasonable to assume the level of inflation estimated on the date of the alleged corrective disclosure was present throughout the entire Class Period. The amount of inflation measured by the event study residual return on the alleged corrective disclosure date is only an accurate measurement of inflation earlier in the Class Period to the extent that the information actually disclosed in the alleged corrective disclosure was known by the issuer and could have been disclosed earlier. For example, if the alleged corrective disclosure reveals a materialization of a concealed risk, it is not proper to apply the inflation measured by the event study to periods before the risk materialized. Before the issuer knew that the risk had materialized, the most the issuer could have disclosed was the risk itself. In this situation, inflation measured by the price response of a security upon the materialization of the risk would not be a reliable estimate of inflation earlier in the Class Period when it was not clear that the risk would materialize.

20. Moreover, throughout the Class Period, the price of the securities may be impacted by a number of factors that are not attributable to Plaintiffs' claim of harm (*e.g.*, changing economic conditions or investor preferences). As a result of these factors, the price reaction to the information released on the alleged corrective disclosure date(s) would not necessarily be an appropriate measure of the inflation created at earlier times during the Class Period by the alleged misstatements or omissions. Thus, a reliable estimate of damages must evaluate whether such factors have a substantive impact on prices and, if so, quantify such factors and adjust the measure of damages accordingly.

V. Mr. Steinholt's Analysis of SandRidge's November 8 and 9, 2012 Disclosures Fails to Demonstrate Loss Causation and His Estimate of Damages Is Flawed

21. Plaintiffs allege that disclosures by SandRidge on November 8 and 9, 2012 related to the oil and gas content of its wells in the Mississippian play corrected the alleged misstatements and omissions in this matter. Mr. Steinholt purports to show that these disclosures caused a statistically significant decline in the price of SandRidge stock. Specifically, Mr. Steinholt claims that after factoring in the market, the decrease related to this alleged corrective disclosure amounts to 9.9%.⁹ However, Mr. Steinholt's analysis of the disclosures made by SandRidge on November 8 and 9,

⁹ Steinholt Report, ¶ 80.

2012, and the market response to these disclosures, is flawed in several respects, rendering his estimate of damages unreliable.

A. Alleged Corrective Disclosures

22. Plaintiffs allege that “SandRidge grossly misrepresented the estimated ultimate recovery from its wells in the Mississippian,”¹⁰ and that “[d]uring the Class Period oil rates were declining faster than gas rates and SandRidge overstated the oil to gas ratio for its wells in the Mississippian.”¹¹ According to the Complaint, “SandRidge ha[d] misrepresented the true economics of the Mississippian because the EUR for oil and total oil and gas were overstated.”¹²

23. For purposes of estimating damages related to these allegations, Mr. Steinholt relies upon the disclosures made by SandRidge in connection with its press release on November 8, 2012.¹³ Specifically, Mr. Steinholt asserts that “[t]he new negative information disclosed [by SandRidge in its November 8, 2012 press release and within the related conference call with analysts on November 9, 2012] regarding the lower oil production by the Mississippian wells represents a disclosure of the alleged truth.”¹⁴ Mr. Steinholt further asserts that the entire abnormal return on SandRidge’s stock price on November 9, 2012 is attributable to the correction of alleged misstatements made during the Class Period “relating to the oil production at the Mississippian.”¹⁵ In his opinion, all other disclosures on November 8 and 9, 2012 were either irrelevant or “positive confounding factors” and may thus be disregarded in computing a “conservative” estimate of inflation.¹⁶ As discussed below, this opinion is fundamentally flawed because the market did not uniformly view the November 8 and 9, 2012 disclosures as Mr. Steinholt does.

24. Following market close on November 8, 2012, SandRidge issued three distinct press releases: (1) a report concerning the extension of its exchange offer related to its senior debt; (2) a

¹⁰Complaint, ¶ 138. I understand that estimated ultimate recovery (“EUR”) refers to the total amount of oil and gas in a well, separate from periodically reported production results.

¹¹ Complaint, ¶ 142. Specifically, Plaintiffs allege that before the Class Period, “SandRidge represented that production from its horizontal Mississippian type well results in oil of 211 Mbbl (100% Crude) and total production of 409 total Mboe; resulting in a liquid fraction of 52% oil and 48% gas.”

¹² Complaint, ¶ 147.

¹³ SandRidge Press Release, “SandRidge Energy, Inc., Reports Financial and Operational Results for Third Quarter and First Nine Months of 2012,” November 8, 2012.

¹⁴ Steinholt Report, ¶ 71.

¹⁵ Steinholt Report, ¶ 72.

¹⁶ Steinholt Report, ¶ 80.

report discussing its financial and operational results for the prior quarter; and (3) a press release responding to a letter SandRidge received that day from an activist shareholder.¹⁷

25. The second of these releases (the press release summarizing its quarterly results) contained, among other things, discussion of the Company's quarterly operational results, including a discussion of the gas and oil production of SandRidge's Mississippian wells.¹⁸ On November 9, 2012, SandRidge filed its 10-Q with the SEC and hosted an earnings call.

26. In addition to the standard disclosures about financial performance, quarterly production results (including a discussion of the oil and gas production of the Company's Mississippian wells), and estimated annual production, SandRidge's press releases and earnings call contained numerous other disclosures that were subsequently commented upon by market participants, including the announcement of a potential sale of SandRidge's Permian assets to help fund the Company's capital expenditure in the Mississippian play and to reduce the Company's debt load.¹⁹

B. Mr. Steinholt Fails to Identify the Specific Misrepresentations and Omissions on Which He Relies or What the Company Could or Should Have Disclosed Differently Earlier in the Class Period

27. Mr. Steinholt assumes that Plaintiffs will prove their allegations²⁰ and lists eight "fraud-related event days" between February 25, 2011 and November 9, 2012.²¹ However, even if one were to assume that the allegations repeated by Mr. Steinholt were to be proven true, the fact

¹⁷ On November 8, 2012, before the market opened, Dinakar Singh, CEO of the hedge fund TPG-Axon, released a letter criticizing the management of SandRidge. *See* Letter from Dinakar Singh to SandRidge Energy, Inc. Board of Directors, November 8, 2012, SD-SECURITIES-0723450. The letter that was filed by SandRidge after the close of the market on November 8, 2012 contained SandRidge's response to this letter from TPG-Axon. Within this letter, SandRidge stated "The Board and management value the opinions of our shareholders and are always open to constructive engagement with them. While our perspectives on various points made in the letter from TPG-Axon differ in many instances, we agree that SandRidge has valuable assets and that we need to focus on improving performance for shareholders. The Board continues to actively work with management in taking steps to improve shareholder performance. Following our Q3 earnings release this afternoon, we will continue to engage substantively with shareholders." *See* SandRidge Press Release, "SandRidge Energy, Inc. Responds to Shareholder Letter," November 8, 2012.

¹⁸ SandRidge Press Release, "SandRidge Energy, Inc., Reports Financial and Operational Results for Third Quarter and First Nine Months of 2012," November 8, 2012.

¹⁹ "SandRidge announced that it is exploring the sale of its assets in the Permian Basin, other than those associated with SandRidge Permian Trust. The relevant assets produce approximately 24,500 Boe per day (67% oil, 15% NGLs and 18% natural gas). Proceeds would be used to fund the company's capital expenditure program in the Mississippian Play and to repay debt, building upon SandRidge's strong liquidity and further improving its leverage." *See* SandRidge Energy, Inc. Press Release, "SandRidge Energy, Inc. Reports Financial and Operational Results for Third Quarter and First Nine Months of 2012" November 8, 2012.

²⁰ Steinholt Report, ¶ 26.

²¹ Steinholt Report, ¶ 50.

pattern reiterated by Mr. Steinholt fails to meet the fundamental requirements of a loss causation analysis.

28. To demonstrate loss causation, Mr. Steinholt's analysis must do the following: (i) identify the alleged misrepresentations or omissions made by Defendants, (ii) articulate the "but-for" disclosure, (iii) identify whether there were any "corrective disclosures" that revealed some truth that was previously concealed by the alleged misrepresentations or omissions and was not already known to market participants, and (iv) analyze the price reaction of SandRidge stock to the "corrective disclosures," while accounting for any confounding information to determine whether investors in SandRidge equity incurred losses.

29. Mr. Steinholt has failed to clearly identify the misrepresentations or omissions made by Defendants that were subsequently corrected by the alleged corrective disclosures. To do so, Mr. Steinholt would have to specify the misrepresentation or omission and demonstrate how it was misleading at the time of the disclosure.

30. Critically, Mr. Steinholt has failed to articulate the "but-for" disclosure. In order to demonstrate loss causation, the articulation of this "but-for" disclosure would need to identify what information could have been disclosed in order to make the alleged misrepresentation or omission not misleading. The articulation of this "but-for" disclosure would also necessarily consider when this information became known or knowable to Defendants, as Defendants could not be held liable for the failure to disclose information that was not known or knowable to them.

31. Despite the absence of this information from his report, Mr. Steinholt appears to conclude that the inflation in the price of SandRidge's common stock started at the beginning of the Class Period, regardless of whether SandRidge knew or could have known information that would have corrected the alleged misstatements and omissions.²²

32. Without clarity about precisely which statements he assumes to be false and why, Mr. Steinholt fails to provide a basis for his determination regarding when and to what extent purchasers of SandRidge common stock were damaged. He has substantiated neither what misstatement (if any) those purchasers implicitly relied upon when they purchased SandRidge common stock nor that investors who purchased throughout the Class Period sustained the same damages per share regardless of the date of their purchase.

²² Steinholt Report, ¶ 12.

33. Without this information, Mr. Steinholt's opinions lack a necessary factual basis and are not reliable.²³

C. Mr. Steinholt Has Failed to Demonstrate That the Market Movement on November 9, 2012 Was Driven by the Corrective Disclosure of Alleged Misstatements

34. Mr. Steinholt assumes that the negative movement in SandRidge's stock price on November 9, 2012 was driven by disclosures concerning the performance of wells in the Mississippian play. Even if one were to disregard the fact that Mr. Steinholt has failed to fully address confounding information (which I discuss in more detail below in Section V.D), Mr. Steinholt also fails to acknowledge and address analyst commentary that demonstrates that some market participants considered SandRidge's disclosures on November 8, 2012 to be positive news and others considered the disclosed information to be consistent with expectations. Analyst commentary from that period demonstrates that analysts did not uniformly interpret as positive or negative the disclosures in SandRidge's quarterly filing and related conference call.

35. Some analysts viewed SandRidge's Q3 2012 production guidance as confirmation of prior expectations that oil production in the Mississippian play would decline. For example, in a report from Deutsche Bank on November 13, 2012, an analyst noted that the November 9, 2012 conference call "confirmed concerns about deteriorating oil performance in the Mississippian."²⁴ This suggests that the disclosure about the decline in the oil content of SandRidge's Mississippian wells was not "new" information to all market participants. To the extent that information is not "new" to participants, event study methodology does not attribute the price reaction of a security to the disclosure of that information.

36. Simultaneously, other market participants viewed SandRidge's Q3 2012 production guidance as positive. For example, a November 9, 2012 report from analysts at Susquehanna Financial Group described SandRidge's announcement as "mostly improved guidance" and noted that "2012 total production is guided higher by 1% with more gas but slightly lower oil volume."²⁵

²³ I therefore reserve the right to supplement this report in response to any information that Plaintiffs or Mr. Steinholt might provide about the factual assumptions underlying the Complaint and his report.

²⁴ Todd, Ryan, et al., "Doubling Down in the Miss," Deutsche Bank Markets Research, November 13, 2012, p. 1.

²⁵ Grubert, Duane and George Wang, "SandRidge Energy, Inc.: Good 3Q, Fresh Bold Tactics and We Ponder Activist Agendas," Susquehanna Financial Group, LLLP Exploration & Production, November 9, 2012, pp. 1-2

These same analysts stated a belief that “there’s a lot more oil on Mississippian acreage than the market rewards, [and SandRidge] dominates there.”²⁶

37. More generally, Mr. Steinholt has failed to articulate how he has assessed market expectations with respect to production results disclosed by SandRidge. Event study methodology requires that each alleged corrective disclosure be evaluated in order to ascertain whether the information disclosed to market participants is “new.” In this matter, this would require that Mr. Steinholt develop a framework for determining whether the production information disclosed by SandRidge on November 8 and 9, 2012 was above, below, or in-line with market expectations. This is not a trivial exercise. Analyst commentary in this matter demonstrates that analysts developed their own expectations that did not always align with the production guidance that had been issued by SandRidge. For example, in a March 2010 report from Goldman Sachs, analysts discussed updates made to their own production expectations, stating “we are assuming an oilier mix, though only giving credit to 22,000 BOE/d from the Permian Basin in 4Q 2012 vs. management’s 27,000 BOE/d guidance.”²⁷ Similarly, in April 2011, analysts noted that they had *not* updated their projections to reflect “improving well performance in both the Permian and horizontal Mississippian plays,” suggesting that, again, the expectations of some market participants were lower than production information issued by SandRidge.²⁸ Yet other analysts indicated that their expectation of SandRidge’s future production mix from the Mississippian did not necessarily align with the projections offered by SandRidge within its Q3 2012 disclosures. For example, in a November 8, 2012 report, Citi analysts noted upside to their valuation of SandRidge equity, which they attributed to an expectation of “rapid development of the Mississippian to drive strong, oily production growth in 2012, 2013, and longer term.”²⁹ The analysts further wrote that the Company’s “aggressive ramp, combined with the economics of the Mississippian, implie[d] a net present value for the riskd resource potential of [the Mississippian]

²⁶ Grubert, Duane and George Wang, “SandRidge Energy, Inc.: Good 3Q, Fresh Bold Tactics and We Ponder Activist Agendas,” Susquehanna Financial Group, LLLP Exploration & Production, November 9, 2012, p. 4.

²⁷ Singer, Brian et al., “SandRidge Energy, Inc. (SD): Confidence in Permian assets/returns needed to reverse weakness,” Goldman Sachs, March 2, 2010, p. 4.

²⁸ Morrison, Dan, “SandRidge Energy, Inc.: Liquidity improving; increasing price target to \$11.15; upgrading to Neutral,” Global Hunter Securities, April 28, 2011, p. 1.

²⁹ Stewart, Joseph, et al., “SandRidge Energy Inc (SD) ‘Quick Read’- Q3 Beats; Lower Spending & Production Outlook,” Citi Research Equities, Nov. 8, 2012, p. 8.

play alone that [was] more than the Company's current market cap."³⁰ Other market participants shared this optimistic outlook for the potential growth of SandRidge's oil production in the Mississippian. For example, an analyst from Canaccord stated in a November 9, 2012 report that "our '13 production outlook is ~5% above guidance (39.2 Mmboe) as a consequence of a highly optimistic outlook as to liquids growth."³¹

38. The potential for production guidance to be unreliable is noted by numerous analysts throughout the Class Period.³² Therefore, the proper implementation of event study methodology requires that Mr. Steinholt articulate his methodology for determining whether or not updated production information disclosed by SandRidge is "new" (*i.e.*, above or below market expectations).

D. Mr. Steinholt's Analysis of Confounding Information Is Incomplete and Misleading

39. In his analysis of the price reaction of SandRidge equity to the alleged corrective disclosures on November 8 and 9, 2012, Mr. Steinholt identifies "two positive confounding factors disclosed at the same time as the alleged truth: (a) the 3Q2012 results that beat estimates, and, (b) the potential Permian sale."³³ He then cites these purportedly "positive confounding factors" as support for the assertion that his damages estimate is conservative.³⁴ However, a more thorough analysis of the information disclosed to the market on November 8 and 9, 2012, as well as the commentary from market participants in response to these disclosures, demonstrates that Mr. Steinholt's analysis of confounding information is incomplete and misleading.

³⁰ Stewart, Joseph, et al., "SandRidge Energy Inc (SD) 'Quick Read'- Q3 Beats; Lower Spending & Production Outlook," Citi Research Equities, Nov. 8, 2012, p. 8.

³¹ Gerdes, John, "Gassy Production Outlook; Negative Value Impact," Canaccord Genuity, November 9, 2012, p. 1.

³² See, e.g., Gerdes, John and Cameron Horwitz, "SandRidge Energy: Q1/11 Miss on Lower Production and Weaker Price Realizations; Lowering Target \$1 to \$12 Per Share," Canaccord Genuity, May 9, 2011, p. 2 ("Our '11 production expectation of 23.5 Mmboe, net of the royalty trust sale, is slightly above guidance."); Bruno, Rhett et al., "SandRidge Energy: Mississippian drilling set to double; Raising to \$11," Bank of America Merrill Lynch, May 9, 2011; Todd, Ryan et al., "SandRidge Energy: Variations on the Miss; Initiating with a Hold," Deutsche Bank, December 8, 2011; Grubert, Duane and George Wang, "SIG's Gasman's Weekly Natural Gas & Energy Team Report +64 bcf to 3372," Susquehanna Financial Group, LLLP, August 30, 2012, p. 2.

³³ Steinholt Report, ¶ 80.

³⁴ Steinholt Report, ¶ 80.

1. Mr. Steinholt's Assertion That the Permian Sale Was "Generally Viewed by Analysts as a Positive" Is Misleading

40. Mr. Steinholt's characterization of the potential Permian sale as a "positive confounding factor" is based on his assertion that "the potential Permian sale was a choice made by the Company to benefit SandRidge [and] was generally viewed by analysts as a positive."³⁵ Mr. Steinholt offers no independent assessment of the potential Permian sale and disregards ample analyst commentary demonstrating that some market participants viewed the potential Permian sale as a negative development. For example, on November 8, 2012, analysts from Deutsche Bank cautioned that the "loss of Permian cash flow" could lead to "funding issues" in the long term³⁶ and posited on November 13, 2012 that the sale may cause some investors to lose confidence in SandRidge management due to the sudden strategic shift.³⁷ A report from J.P. Morgan noted that some investors had questioned the proposed Permian sale due to the high margins generated by these assets and their corresponding impact on EBITDA.³⁸ SunTrust identified a similar risk in its assessment of SandRidge, noting that the sale of the Permian assets would result in a lower ratio of oil across SandRidge's remaining (primarily Mississippian) assets.³⁹ Morningstar emphasized the sudden and surprising nature of the announcement and questioned "the decision to part with a mature asset that contributes a meaningful amount of cash flow to the firm," even if that meant the Company could satisfy its "need for cash in the face of a leveraged balance sheet."⁴⁰

41. The Company also faced skepticism about the transaction on its November 9, 2012 conference call. An analyst from Tudor, Pickering, Holt & Co. expressed confusion "on why... the existing plan"—that is, developing both Permian and Mississippian assets—was "not the best option," because the Company was producing "some of the higher margin barrels" from the Permian assets.⁴¹

³⁵ Steinholt Report, ¶ 72.

³⁶ Todd, Ryan, et al., "The Biggest Move Yet to Shore Up the Balance Sheet," Deutsche Bank Markets Research, November 8, 2012, p. 1.

³⁷ Todd, Ryan, et al., "Doubling Down in the Miss," Deutsche Bank Markets Research, November 13, 2012, p. 1.

³⁸ Allman, Joseph et al., "SandRidge Energy Inc. Less Enthused but Still Think the Stock Is Cheap and Will Outperform," J.P. Morgan North America Equity Research, Nov. 16, 2012, p. 5.

³⁹ Dingmann, Neal, et al., "SD- Results Appear Slightly Positive Provided Certain Steps Taken," SunTrust Robinson Humphrey, November 8, 2012, p. 1.

⁴⁰ Hanson, Mark, "Rollercoaster Ride Continues: SandRidge Looks to Sell Permian, Delivers Underwhelming 2013 Guidance," Morningstar Equity Research, November 9, 2012, p. 1.

⁴¹ Conference Call Transcript, SandRidge Energy, Inc., Nov. 9, 2012.

42. To be sure, certain other analysts viewed the strategic shift as a positive to SandRidge. For example, analysts from Wunderlich Securities stated in a November 12, 2012 report that they applauded “this move as it should allow SandRidge to raise significant funds that can be deployed into the Mississippian in order to ramp production while also reducing the debt level.”⁴² The Wunderlich report went on to further assert that the sale of the Permian assets, if completed, would “turn SandRidge into a much more financially stable, funded and growing company with an asset base that stacks up with any other company of its size in the industry.”⁴³ Even Wunderlich acknowledged, however, that the views of other analysts or investors were not uniformly positive, noting that “some may be disappointed with” the prospect of a “higher natural gas weighting going forward” if a Permian transaction were concluded.⁴⁴

43. Furthermore, in his deposition testimony in this matter, Mr. Ward testified to the negative initial reaction of market analysts to the announced potential sale of the Company’s assets in the Permian Basin. For example, Mr. Ward testified “the investment community thought that we were only going to receive a billion dollars or it would be dilutive to our stock to sell the Permian. And ultimately that proved not to be true and within a month we were back higher than we were the day before of the press release....[The sale of the Company’s Permian assets] ended up making—sold for \$2.6 billion and... the company was in an extraordinarily good financial position by the end of 2012.”⁴⁵ The focus of market analysts on the return that SandRidge could expect from the sale of its assets in the Permian Basin immediately following the announced potential sale is also reflected in internal SandRidge communications from November 8, 2012. For example, after the release of SandRidge’s quarterly filings on November 9, 2012,⁴⁶ SandRidge personnel circulated internally a list of “common questions/comments” in response to the filings, including a number of questions related to the potential Permian sale. These included questions related to the level of

⁴² Wangler, Jason A., “Focusing on the Core Growth Play While Reducing Debt,” Wunderlich Securities, November 12, 2012, p. 1.

⁴³ Wangler, Jason A., “Focusing on the Core Growth Play While Reducing Debt,” Wunderlich Securities, November 12, 2012, p. 1.

⁴⁴ Wangler, Jason A., “Focusing on the Core Growth Play While Reducing Debt,” Wunderlich Securities, November 12, 2012, p. 1.

⁴⁵ Deposition of Tom Ward, March 29, 2019, 397:8–19.

⁴⁶ SandRidge Energy, Inc. Form 10-Q, 3Q 2012.

free cash flows currently generated by the Permian assets and what proceeds were expected from the sale.⁴⁷

44. As the diversity of views discussed above reflects, the reactions of analysts were not uniformly positive, and there is thus no basis for Mr. Steinholt to assume, without analysis, that the disclosure of a potential Permian transaction must have had a positive impact on SandRidge's stock price. To the contrary, the transcript from an industry conference on November 13, 2012 suggests that one market analyst viewed the proposed sale of the Permian assets as the primary driver of the drop in SandRidge's share price around the alleged corrective disclosure date. The analyst asked SandRidge's CEO to comment on the fact that the market reacted negatively to the sale of the Permian assets.⁴⁸

45. Mr. Steinholt's assertion that "the potential Permian sale...was generally viewed by analysts as a positive"⁴⁹ is further contradicted by the characterization of the potential Permian sale within the pleadings filed by Plaintiffs in this matter. For example, in their Consolidated Amended Complaint for Violations of Federal Securities Law, Plaintiffs allege that analysts were "concerned and confused about the Company's sale of its valuable Permian Basin assets" and asked "why the Company would sell the higher-margin producing Permian Basin oil assets while retaining the lower margin primarily natural gas producing Mississippian formation assets."⁵⁰

46. Despite the prominence of the proposed sale of SandRidge's assets in the Permian Basin within analyst commentary—and the negative reactions described above to the proposed sale—Mr. Steinholt's calculation of damages does not attempt to parse out the impact of this disclosure. Mr. Steinholt instead summarily and inaccurately dismisses the Permian disclosures as a "positive confounding factor[],"⁵¹ failing to consider the substantial evidence that many investors in the market concluded otherwise. Mr. Steinholt's failure to appropriately account for this confounding information in his analysis renders his opinion regarding loss causation and his estimation of damages unreliable.

⁴⁷ SD-SECURITIES-0350457–61 at -57.

⁴⁸ See SandRidge Presentation, "SD - SandRidge Energy at Bank of America Merrill Lynch Global Energy Conference," November 13, 2012.

⁴⁹ Steinholt Report, ¶ 72.

⁵⁰ Complaint, ¶ 304 (citing the Transcript of SandRidge's November 9, 2012 Conference Call).

⁵¹ Steinholt Report, ¶ 80; *see also* Steinholt Report, ¶ 72.

2. SandRidge Disclosed Confounding Information Regarding Increased Average Well Costs

47. Within its Q3 2012 filing, SandRidge disclosed that the average well costs within the Mississippian play had increased from \$3.0 million per well to \$3.25 million per well.⁵² Unsurprisingly, some analysts following SandRidge identified this disclosure of increased well costs as a negative development. For example, an analyst from Capital One characterized this cost disclosure as one of several “negative items” that caused the analyst to lower the price target for SandRidge equity.⁵³ Mr. Steinholt does not address this disclosure and makes no effort to disaggregate any effect it had on SandRidge’s stock price when assessing loss causation and estimating price inflation.

3. Analysts Discussed Concerns Regarding Cash Flow and Funding Issues

48. Following SandRidge’s Q3 2012 quarterly disclosures, market participants also expressed concern regarding the potential impact of the sale of the Company’s Permian assets on the ability of the Company to continue meeting its capital expenditure obligations. For example, in a November 8, 2012 analyst report from Deutsche Bank, analysts noted that the sale of the Permian assets would help the near-term balance sheet, but that, in the long term, “funding issues remain, particularly given the loss of Permian cash flow.”⁵⁴ On November 9, 2012, analysts from Morningstar commented on the potential ramifications of a sale of the Company’s Permian assets, stating “SandRidge Energy SD threw investors for another loop with Thursday’s quarterly results, in which the company announced its intention to sell its Permian Basin assets in order to pay down debt and fund development of its horizontal Mississippian play. The Permian accounts for one fourth of SandRidge’s production volume, and up until Thursday’s announcement had been a core element of the company’s shallow-depth, oil-focused strategy... So while we understand the need for cash in the face of a leveraged balance sheet and ongoing funding shortfalls, we question the decision to part with a mature asset that contributes a meaningful amount of cash flow to the

⁵² SandRidge, Energy, Inc. Form 10-Q, 3Q 2012.

⁵³ Tullis, Richard, “SD: Reducing Target to \$8 & Downgrading to Neutral,” Capital One, November 12, 2012, p. 1.

⁵⁴ Ryan, Todd, et. al., “The Biggest Move Yet to Shore Up the Balance Sheet,” Deutsche Bank Market Research, November 8, 2012, p. 1.

firm.”⁵⁵ Analysts from Capital One estimated that the suspension of drilling in the Permian Basin and the proposed sale of SandRidge’s Permian assets would drop 2013 EBITDA from \$1.55 billion to \$1.29 billion.⁵⁶

49. Mr. Steinholt also does not take these reactions into consideration and does not attempt to remove any confounding effect they may have had from his calculation of price inflation.

4. SandRidge Disclosed Confounding Information Regarding Inoperable Rigs

50. In its November 9, 2012 conference call, SandRidge announced that its rigs in the Gulf of Mexico had suffered from mechanical difficulties which affected approximately three wells, as well as difficulties from Hurricane Isaac, which came ashore in the state of Louisiana during August 2012 and caused the loss of “around 200,000 barrels of oil equivalent, about half of it being oil.”⁵⁷

51. Following the conference call, analysts commented on this disclosure. For example, an analyst report by Baird, dated November 12, 2012, discussed the news given during the conference call, reporting that SandRidge production in the Gulf of Mexico “decreased by 200 Mboe due to Hurricane Isaac downtime.”⁵⁸

52. Again, Mr. Steinholt does not mention this disclosure and does not attempt to remove any confounding effects of this announcement from the residual returns calculated in his report.

5. SandRidge Disclosed Confounding Information Regarding the Response to an Activist Shareholder Letter

53. Before the market opened on November 8, 2012, TPG-Axon, which owned approximately 5% of the outstanding shares of SandRidge’s common stock, issued a public letter announcing its intention to take action addressing what it characterized as mismanagement by SandRidge and its

⁵⁵ Hanson, Mark, “Rollercoaster Ride Continues: SandRidge Looks to Sell Permian, Delivers Underwhelming 2013 Guidance,” Morningstar, November 9, 2012, p. 1.

⁵⁶ Tullis, Richard, “SD: Reducing Target to \$8 & Downgrading to Neutral,” Capital One, November 12, 2012, p. 1.

⁵⁷ SandRidge, Energy, Inc. Earnings Conference Call, November 9, 2012.

⁵⁸ Peng, Hsulin, “Lower Miss Oil EUR, Permian Slowdown Brings Disappointing 2013 Guidance,” Baird Equity Research, November 12, 2012, p. 3.

Board of Directors.⁵⁹ The letter included allegations of excessive spending, incoherent corporate strategy, poor corporate governance, and self-dealing.⁶⁰ Among other steps, the letter proposed that the Company and its shareholders consider reconfiguring the Board, dismissing the Company's CEO, and exploring strategic alternatives.⁶¹

54. After the market closed on November 8, 2012, SandRidge issued a press release in response to the allegations in the letter, stating that the Company's "perspectives on various points made in the letter from TPG-Axon differ in many instances."⁶² However, the Company did not advance a point-by-point rebuttal or otherwise respond to the substance of TPG-Axon's allegations. Analysts from Susquehanna Financial Group characterized SandRidge shares as "skittish" in response to the presence of the activist investor.⁶³

55. A number of analysts commented on the lack of substance in the response issued by SandRidge after the close of trading on November 8, 2012. Analysts from Baird Equity Research noted that the TPG-Axon letter to SandRidge was the source of "heavy discussion" on the analyst conference call on November 9, 2012.⁶⁴ During that call, an analyst asked "in light of the letter that you received yesterday...[are there] any specifics on changes you're contemplating?" to which Mr. Ward responded, "[n]ot other than what we've shared."⁶⁵ In a subsequent report, analysts from Baird commented on SandRidge's response to analyst questions on the November 9, 2012 conference call related to the activist shareholder, stating, "[d]espite heavy discussion during the call, management gave no financial metric visibility or clear strategic direction for the company

⁵⁹ Letter from Dinakar Singh to SandRidge Energy, Inc. Board of Directors, November 8, 2012, SD-SECURITIES-0723450.

⁶⁰ See Letter from Dinakar Singh to SandRidge Energy, Inc. Board of Directors, November 8, 2012, SD-SECURITIES-0723450.

⁶¹ Letter from Dinakar Singh to SandRidge Energy, Inc. Board of Directors, November 8, 2012, SD-SECURITIES-0723450 at 50–51.

⁶² SandRidge Energy, Inc. Press Release, "SandRidge Energy, Inc. Responds to Shareholder Letter," November 8, 2012.

⁶³ Grubert, Duane, "SandRidge Energy, Inc.: Evolving Plot Line for Dented Franchise," Susquehanna Financial Group, LLP, November 12, 2012, p. 1.

⁶⁴ Peng, Hsulin, "Lower Miss Oil EUR, Permian Slowdown Brings Disappointing 2013 Guidance," Baird Equity Research, November 12, 2012.

⁶⁵ SandRidge Energy, Inc. Earnings Conference Call, November 9, 2012.

after the potential Permian asset sale.”⁶⁶ Analysts from Johnson Rice & Company noted that SandRidge “did not address TPG Axon directly” but instead offered only “general comments.”⁶⁷

56. Despite evidence that on November 8 and 9, 2012, market participants were focusing on the potential impact of TPG-Axon’s letter and SandRidge’s short response, Mr. Steinholt accounts neither for TPG-Axon’s letter nor for SandRidge’s response as potential confounding information in his estimate of damages.

E. Mr. Steinholt’s Estimate of Damages Is Unreliable Because It Does Not Account for Changing Conditions over the Span of the Class Period

57. Mr. Steinholt assumes that the artificial inflation he calculates as of the end of the Class Period would have remained constant throughout the Class Period.⁶⁸ Mr. Steinholt, however, does not justify that assumption. Because of changes in the extent of SandRidge’s business in the Mississippian, changes in SandRidge’s disclosures about the Mississippian, and changes in the price of oil and gas, the alleged misstatements and omissions would have been expected to have a different impact at different points during the Class Period.

1. Mr. Steinholt Does Not Account for the Growing Importance of SandRidge’s Mississippian Holdings

58. Mr. Steinholt’s damages estimates do not account for changes in the relative importance of SandRidge’s Mississippian assets to its business throughout the Class Period.

59. Plaintiffs’ claims concern alleged misrepresentations and omissions about projections of EUR for oil and gas only in SandRidge’s Mississippian wells.⁶⁹ But SandRidge’s business was not limited to the Mississippian. It operated many wells outside the Mississippian during the Class Period, and its revenue was derived from sources both inside and outside the Mississippian.⁷⁰ Investors would thus have weighed not only the performance of SandRidge’s Mississippian wells

⁶⁶ Peng, Hsulin, “SandRidge Energy: Lower Miss Oil EUR, Permian Slowdown Brings Disappointing 2013 Guidance,” November 12, 2012, p. 2.

⁶⁷ Meade, Charles, “SandRidge Energy: 3Q12 Results – Beat Overshadowed by MS EUR Decline and Shareholder Activism,” November 9, 2012, p. 2.

⁶⁸ Steinholt Report, ¶¶ 79–81.

⁶⁹ Complaint, ¶ 5.

⁷⁰ SandRidge Energy, Inc. Form 10-K, FY 2010, p. 4.

when deciding whether to purchase SandRidge common stock, but also the performance of its wells outside the Mississippian.

60. Disclosures about the Mississippian play would have a greater potential impact on SandRidge's revenues, and thus would have been more material to investors, in periods when Mississippian wells made up a greater portion of SandRidge's assets. All else being equal, any inflation caused by alleged misstatements or omissions about the Mississippian would therefore have been expected to grow as SandRidge's holdings in the Mississippian increased relative to its other oil and gas assets.

61. A review of information publicly available during the Class Period confirms that SandRidge's holdings in the Mississippian grew significantly over the Class Period. On February 28, 2011, near the beginning of the Class Period, SandRidge filed its annual report for the 2010 fiscal year and disclosed estimates of its net proved reserves prepared by its independent oil and natural gas consultants.⁷¹ At the time, net proved reserves in the Mid-Continent (containing the Mississippian formation)⁷² were estimated to account for only about 12% of the Company's total net proved reserves.⁷³ SandRidge also reported that it had only seven rigs drilling in the Mississippian play and 17 rigs drilling in the Permian Basin and West Texas Overthrust.⁷⁴

62. When the Company announced its results for the 2011 fiscal year mid-way through the Class Period, its Mid-Continent assets had nearly tripled in relative size. As of December 31, 2011, the Company's independent oil and gas consultants estimated the Company's net proved reserves in the Mid-Continent to make up approximately 31% of the Company's total net proved reserves.⁷⁵ At the time, SandRidge was operating 21 rigs in the Mid-Continent, only 15 in the Permian Basin, and none in the West Texas Overthrust.⁷⁶

63. The growth of SandRidge's operations in the Mississippian continued through the remainder of the Class Period. When the Company filed its annual report for the 2012 fiscal year after the end of the Class Period, its consultants estimated that the Company's net proved reserves

⁷¹ SandRidge Energy, Inc. Form 10-K, FY 2010, p. 4.

⁷² SandRidge Energy, Inc. Form 10-K, FY 2010, p. 5.

⁷³ SandRidge Energy, Inc. Form 10-K, FY 2010, p. 4.

⁷⁴ SandRidge Energy, Inc. Form 10-K, FY 2010, p. 1.

⁷⁵ SandRidge Energy, Inc. Form 10-K, FY 2011, p. 5.

⁷⁶ SandRidge Energy, Inc. Form 10-K, FY 2010, p. 1.

in the Mid-Continent made up approximately 42% of the total, and the Company disclosed that SandRidge was operating 33 rigs in the Mid-Continent.⁷⁷

64. Throughout the Class Period, the Company disclosed the expansion of its operations in the Mississippian in press releases and conference calls. In August 2011, for example, in the press release announcing its quarterly results, the Company's "highlights" reported that it had "[a]dded [a] 200,000 net acre position in new Mississippian play," and had become the "[m]ost active driller in the Mid-Continent Mississippian Play."⁷⁸ And in the Company's November 4, 2011 conference call, Mr. Ward gave investors a "snapshot of where we were last year to where we are now": The Company had "nearly doubled [its] acreage position in the original Mississippian play from 400,000 acres to 800,000 acres."⁷⁹

65. Analyst reports issued during the Class Period demonstrate that investors were aware of the growth of SandRidge's operations in the Mississippian and the waning importance of its non-Mississippian business. At the beginning of the Class Period, Johnson Rice emphasized "[b]oth the Permian Basin and Mississippian" when describing its "Key Takeaway."⁸⁰ Several months later, Morningstar wrote that it expected the share of Mississippian production to grow over the next two years and to account for more than half of SandRidge's production by 2015.⁸¹ Toward the end of the Class Period, Goldman Sachs emphasized SandRidge's position as the "leader in the Mississippian play" and rested its analysis primarily on the future performance of SandRidge's Mississippian wells, which it described as "key for us."⁸²

⁷⁷ SandRidge Energy, Inc. Form 10-K, FY 2012, pp. 1, 4–5.

⁷⁸ SandRidge Energy, Inc. 2Q 2011 Earnings Press Release, "SandRidge Energy, Inc. Reports Financial and Operational Results for Second Quarter and First Six Months of 2011," August 4, 2011, p. 2.; *see also, e.g.*, SandRidge Energy, Inc. Press Release, "SandRidge Energy, Inc. Reports Financial and Operating Results for First Quarter 2011," May 5, 2011, p. 2 ("Sand Ridge drilled 23 horizontal wells in the Mississippian play bringing the total number of operated wells drilled in the Mississippian to 67. . . . SandRidge plans to drill over 130 horizontal wells in the Mississippian play in 2011."); SandRidge Energy, Inc. Press Release, "SandRidge Energy, Inc. Reports Financial and Operational Results for Fourth Quarter and Full Year 2011," February 23, 2012, p. 2 ("SandRidge drilled 59 horizontal wells in the Mississippian play in northern Oklahoma and Kansas bringing the total number of operated wells drilled during 2011 in the Mississippian to 167. . . . SandRidge plans to drill approximately 380 horizontal wells in the Mississippian play in 2012.").

⁷⁹ SandRidge Energy, Inc. Earnings Conference Call Transcript, November 4, 2011.

⁸⁰ Carroll, Kenneth, "Strong Production Drives Estimates, NAV Moves Up As Well, Reiterate OW," Johnson Rice & Company LLC Equity Research, March 3, 2011, p. 1.

⁸¹ Hanson, Mark, "Investors Unhappy with SandRidge's Latest Curveball, Stock Price Drop Offers Attractive Entry Point," Morningstar Equity Research, August 8, 2011, p. 5.

⁸² Singer, Brian, et al., "Still waiting for upside oil surprise without above-expected capex," Goldman Sachs Equity Research, August 6, 2012, p. 1.

66. Despite the fact that SandRidge's Mississippian holdings increased substantially during the Class Period, Mr. Steinholt does not investigate or consider whether the Company's alleged misrepresentations about the Mississippian would consequently have had a different impact on investors at different points in time. This is another fundamental flaw in his analysis.

67. If the Company made statements that inflated the value of its Mississippian assets, as Mr. Steinholt assumes, those statements should have had a more pronounced impact at the end of the Class Period, when SandRidge's operations in the Mississippian were a much larger portion of its business, than at the beginning of the Class Period.

2. Mr. Steinholt Fails to Account for Changes in the Substance of SandRidge's Disclosures Concerning Its Oil and Gas Assets in the Mississippian

68. Just as the extent of SandRidge's holdings changed during the Class Period, so did its disclosures about the oil and gas it estimated were recoverable from those holdings. For example, SandRidge's independent petroleum engineer, Netherland Sewell, released different type curves for Mississippian wells at different points during the Class Period. For the year ending 2010, Netherland Sewell's type curve projected that a group of proved undeveloped ("PUD") Mississippian wells⁸³ would produce 409 MBOE, consisting of 52% oil (211 Mbbl).⁸⁴ For the year ending 2011, Netherland Sewell's type curve projected that a group of Mississippian PUD wells would produce 456 MBOE, consisting of only 45% oil (204 Mbbl).⁸⁵

69. Despite the substantive difference in these forecasts issued at different points during the Class Period, Mr. Steinholt's analysis assumes a constant level of inflation throughout the Class Period. This is yet another flaw in his analysis. If, as Plaintiffs allege, these type curves were each misleading and had the impact of inflating SandRidge's stock price,⁸⁶ then a damages analysis should consider whether the impact of each type curve was the same or different. Without such an analysis, Mr. Steinholt leaves open the possibility that an investor who purchased in reliance

⁸³ See, e.g., Deposition of Rodney Johnson March 14, 2019, pp. 39:15–23 ("Our PUD type curve represents a type curve for the PUDs that are on the books at the year-end in which they were generated as generated by Netherland Sewell only for those wells represented in the report as PUDs.")

⁸⁴ Steinholt Report ¶ 19; Complaint, ¶ 166; see also SandRidge Energy, Inc. Presentation, Credit Suisse 2011 Energy Summit, February 8, 2011, SD-SECURITIES-0324797, at 4806–07, 4809, 4811.

⁸⁵ Complaint ¶ 229; see also, e.g., Transcript of SandRidge Energy, Inc. at Global Hunter Securities 100 Energy Conference, June 26, 2012, SD-SECURITIES-0685941 at 5968–5970.

⁸⁶ See, e.g., Complaint, ¶¶ 166–67, 223–24.

on the first type curve (Year End 2010) suffered greater or lesser damages than an investor who purchased later, in reliance on the second type curve (Year End 2011).

3. Mr. Steinholt Does Not Account for Relative Movements in the Prices of Oil and Gas

70. Mr. Steinholt similarly fails to justify his implicit assumption that inflation remained constant despite fluctuations in the relative prices of gas and oil.

71. As shown in Exhibit 1, the spot prices of oil and gas did not move in unison throughout the Class Period.⁸⁷ Market analysts covering SandRidge's equity commented extensively upon the importance of gas and oil prices in establishing pricing targets for the security. When identifying the key sources of risk to their investment theses, analysts almost uniformly identified oil and gas prices as a consideration.⁸⁸

72. Certain analysts noted that SandRidge's exposure to oil and gas prices had been hedged; however, these hedges did not eliminate the impact of swings in commodity prices on the performance of SandRidge's equity.⁸⁹ SandRidge's public filings demonstrate that the Company's derivative contracts were not so extensive as to lock in an effectively fixed ratio between the prices of oil and natural gas.⁹⁰

73. Analysts noted that, although partially hedged against movements in commodity prices, SandRidge remained exposed to swings in the prices of gas and oil. For example, in a November 12, 2012 report from Global Hunter Securities, an analyst noted that "[w]hile SandRidge remains well hedged, should an extended period of low commodity prices materialize the company could

⁸⁷ As explained in the note at the bottom of Exhibit 1, I have also evaluated the movement of oil and gas prices throughout the Class Period as measured using futures prices. The results of this iteration of the analysis are highly consistent with the iteration of the analysis using spot prices.

⁸⁸ See, e.g., Gruber, Duane, et al., "SandRidge Energy, Inc.: Cruel Timing of Major Catalyst Announcement(s), and We Are Buyers," Susquehanna Financial Group, August 5, 2011, p. 1 ("Commodity price movements usually comprise the largest risk/reward component to E&P stocks.").

⁸⁹ See, e.g., SandRidge Energy, Inc. Form 10-K FY 2012, p. 38 ("To achieve a more predictable cash flow and to reduce its exposure to adverse fluctuations in the prices of oil and natural gas, the Company currently has entered, and may in the future enter, into derivative contracts for a portion of its future oil and natural gas production, including fixed price swaps, collars and basis swaps.").

⁹⁰ See, e.g., SandRidge Energy, Inc. Form 10-K FY 2012, pp. 63–64 (listing both average prices as reported and average prices including the impacts of derivative contract settlements and showing ratios of oil to natural gas prices that ranged from approximately 11:1 in 2010 to 37:1 in 2012, even after taking derivatives contacts settlements into account).

be disproportionately impacted....”⁹¹ In an industry conference on November 13, 2012, Mr. Ward stated that, although largely hedged on its oil positions, SandRidge was “basically unhedged on [its] natural gas position.”⁹²

74. In keeping with the fact that the Company was not perfectly hedged, analysts following SandRidge’s equity continued to comment upon the importance of oil and gas prices to their price targets up until the end of the Class Period. For example, oil and gas commodity prices were identified as significant risks to the price targets within the equity reports filed by Stifel Nicholas,⁹³ Canaccord,⁹⁴ Susquehanna Financial Group,⁹⁵ Ladenburg Thalmann & Co.,⁹⁶ and RBC Capital Markets,⁹⁷ among others.

75. Despite the particular importance of the prices of oil and gas to Plaintiffs’ allegations and the fact that multiple market participants identified the prices of oil and gas as an important factor when determining the price of SandRidge equity, Mr. Steinholt does not address these factors in his calculation of inflation. Mr. Steinholt’s estimate of damages is thus unreliable.

4. Mr. Steinholt’s Estimate of Damages Fails to Take into Account Differences in the Information Available to SandRidge over the Class Period

76. SandRidge’s oil and gas production in the Mississippian expanded significantly over the Class Period. According to the Complaint, as more and more production data became available, different facts emerged about the productivity of Mississippian wells and their oil content. For example, the Complaint alleges that (i) “production data reported by SandRidge reveals that its wells produced less than 40% oil and more than 60% gas during 2011,” (ii) “production data

⁹¹ Trimble, Curtis and William Derrick, “SandRidge Energy, Inc.; Q3 Update: Surprises abound, most not good,” Global Hunter Securities, November 12, 2012, p. 4.

⁹² SandRidge Energy Inc. Global Energy Conference at the Bank of America Merrill Lynch, November 13, 2012, p. 3.

⁹³ Arif, Amir, et al., “Reducing Target Price; 2013 Guidance is Negative; Potential Permian Sale Is a Positive,” Stifel Nicolaus, November 9, 2012, p. 3.

⁹⁴ Gerdes, John, “Gassy Production Outlook; Negative Value Impact,” Canaccord Genuity, November 9, 2012, p. 2.

⁹⁵ Grubert, Duane and George Wang, “SandRidge Energy, Inc.: Good 3Q, Fresh Bold Tactics and We Ponder Activist Agendas,” Susquehanna Financial Group, LLLP, Nov. 9, 2012, p. 1.

⁹⁶ Schmitz, Michael, “SandRidge Energy (NYSE: SD); Q3 ‘12 Results - Quick Read; Adjusted Estimates,” Ladenburg Thalmann, November 9, 2012, p. 4.

⁹⁷ Hanold, Scott and JB Jouve, “SandRidge Energy (NYSE: SD); Reducing Oil Growth,” RBC Capital Markets, November 11, 2012, p. 2.

reported by SandRidge reveals that its wells produced on average 35% oil and 65% gas during 2012, and (iii) there was “a precipitous drop in oil rates for SandRidge’s Mississippian wells, which began no later than March 2012 and continued to drop further between April to June 2012....”⁹⁸

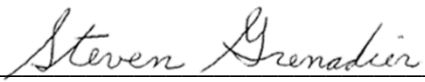
77. If, as the Complaint alleges, these changes occurred over the Class Period and were known to Defendants, then they would presumably have affected the “relevant truth” that could have been disclosed to the market at particular points in time. For example, if, as the Complaint alleges, there was a “precipitous drop in oil rates for SandRidge’s Mississippian wells” in or around March 2012, then the “relevant truth” that SandRidge presumably could have disclosed would have changed after this “precipitous drop” became known or knowable. Mr. Steinholt’s analysis ignores this possibility, effectively assuming that the “relevant truth” was the same throughout the Class Period—that is, that SandRidge should have made the same disclosures about the ratio of oil to gas in Mississippian wells at the start of the Class Period as it did on November 9, 2012, when it allegedly disclosed that “the average Mississippian well was now expected to produce less than 40% oil, and that the oil EUR was 155 Mbbl.”⁹⁹

78. Mr. Steinholt’s flawed assumption that the “relevant truth” would have been consistent throughout the Class Period renders his estimate of damages unreliable. Specifically, as the “relevant truth” changed over the course of the Class Period (i.e., as different facts emerged regarding the productivity of the Mississippian wells), the reaction of market participants to this “relevant truth” would also be expected to change. Mr. Steinholt has undertaken no analysis to assess whether it was reasonable to assume that the “relevant truth” would have remained the same throughout the Class Period, and instead, under this assumption, has asserted that the reaction of SandRidge stock to the November 8 and 9, 2012 disclosures is an appropriate estimate of damages throughout the Class Period. As evidenced throughout this report, his assertion is flawed and unreliable.

⁹⁸ Complaint, ¶¶ 152–53.

⁹⁹ Steinholt Report, ¶ 30.

Executed this 4th of April, 2019



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DOCTORAL STUDIES

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HONORS

The article "The Strategic Exercise of Options: Development Cascades and Overbuilding in Real Estate Markets," was nominated for the Smith Breeden Prize of the Journal of Finance in 1997

1994 Best Paper Award from the American Real Estate and Urban Economics Association and the American Institute of Individual Investors

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PUBLICATIONS

Grenadier, Steven and Samuel Antill (2018), “Optimal Capital Structure and Bankruptcy Choice: Dynamic Bargaining vs Liquidation,” *Journal of Financial Economics*, Forthcoming.

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WORKING PAPERS

“Capital budgeting and Real Options: The Case of Concealed Investment Projects,” with Andrey Malenko.

“Sandbagging Real Options,” with William Cong.

EDITORIAL RESPONSIBILITIES

Editor, *Journal of Real Estate Finance and Economics*, 1996-

Associate Editor, *Journal of Economic Dynamics and Control*, 2003-2010

PROFESSIONAL ACTIVITIES

Chairman of the Finance Department, Graduate School of Business, Stanford

University: 2003-2006, 2011-

Trustee of AQR Funds: 2008-2011

Trustee of E*Trade Funds: 1999-2009

Senior Consultant: Financial Engines, Inc.: 1997-

Trustee of Nicholas Applegate Institutional Funds: 2007-2010

Member of the Stanford University Retirement Program Investment Committee,
2005-2011

Consultant to Applied Materials

Consultant to Shell Capital

Consultant to Zevenbergen Capital

TEACHING EXPERIENCE

Modeling for Investment Management: 2009-

Critical Analytical Thinking: 2010-2012

Portfolio Management: 1992-2006

Essentials of Real Estate Investment: 1994-2009

Foundations of Financial Economics: 1995-1997, 2006-

Finance Core: 1993

PRESENTATIONS

Brigham Young University

Carnegie Mellon University

Columbia University (2 seminars)

Harvard Business School (2 seminars)

Massachusetts Institute of Technology

Northwestern University (2 seminars)

Ohio State University

Southern Methodist University

Stanford University

University of British Columbia (2 seminars)
University of California at Berkeley (3 seminars)
University of California at Los Angeles (3 seminars)
University of Chicago (2 seminars)
University of Connecticut (3 seminars)
University of Illinois
University of Minnesota
University of Oregon
University of Pennsylvania (3 seminars)
University of Rochester
University of Southern California
University of Texas at Austin
University of Utah
University of Wisconsin (2 seminars)
Yale University (2 seminars)

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Prior testimony over the previous four years

Acument Global Technologies, Inc. and Acument Global Technologies, Inc. Pension Plan v. Towers Watson & Co. and Towers Watson Investment Services, Inc. (f/k/a Watson Wyatt Investment Consulting, Inc.), Case No. 1:12-cv-00506 (S.D.N.Y.). Deposition: 2014.

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- Douthat, Gordon, "SDT: Q3 2012 Distributions Below On Pricing," Wells Fargo Securities, November 1, 2012
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Appendix C

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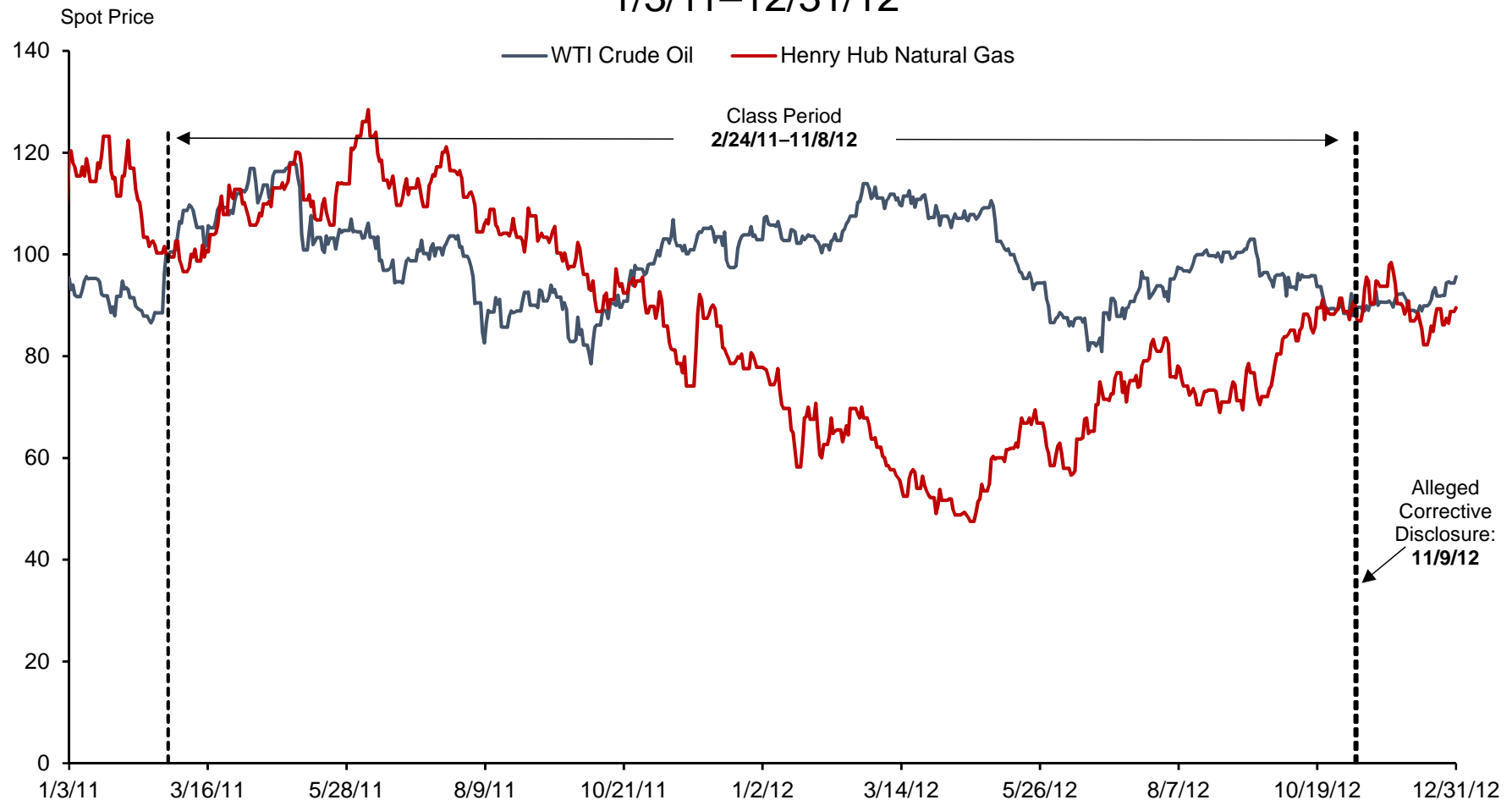
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Data

- *Bloomberg*
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Note: In addition to all materials listed, I considered all materials cited in my report and accompanying exhibits.

Relative Price Movements of WTI Crude Oil and Henry Hub Natural Gas: Spot Prices 1/3/11–12/31/12



Source: U.S. Energy Information Administration; Expert Report of Bjorn I. Steinholt, CFA, SandRidge Energy, Inc. Securities Litigation, February 16, 2018; Third Consolidated Amended Complaint for Violations of Federal Securities Laws in the Matter of SandRidge Energy, Inc., October 21, 2016

Note: Prices are pegged to 100 on 2/23/11, the day prior to the Class Period. This analysis uses spot prices for WTI Crude Oil and Henry Hub Natural Gas as reported by the U.S. Energy Information Administration. In addition, I have also performed this same analysis utilizing WTI Crude Oil and Henry Hub Natural Gas 1-month rolling futures prices as provided by Refinitiv. The results of the iteration of the analysis utilizing futures prices are highly consistent to those presented in this exhibit, including the relationship between the two commodities and the changes in value over time.

Daily Ratio of WTI Crude Oil to Henry Hub Natural Gas: Spot Prices

2/23/11–12/31/12



Source: U.S. Energy Information Administration; Expert Report of Bjorn I. Steinholt, CFA, SandRidge Energy, Inc. Securities Litigation, February 16, 2018; Third Consolidated Amended Complaint for Violations of Federal Securities Laws in the Matter of SandRidge Energy, Inc., October 21, 2016

Note: Prices are pegged to 100 on 2/23/11, the day prior to the Class Period. This analysis uses spot prices for WTI Crude Oil and Henry Hub Natural Gas as reported by the U.S. Energy Information Administration. In addition, I have also performed this same analysis utilizing WTI Crude Oil and Henry Hub Natural Gas 1-month rolling futures prices as provided by Refinitiv. The results of the iteration of the analysis utilizing futures prices are highly consistent to those presented in this exhibit, including the relationship between the two commodities and the changes in value over time.